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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,060	07/06/2001	Travis J. Muhlestein	MSFT115921	7821

26389 7590 01/05/2009

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EXAMINER	
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ART UNIT	PAPER NUMBER
2193	

MAIL DATE	DELIVERY MODE
01/05/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/900,060	MUHLESTEIN ET AL.	
	Examiner	Art Unit	
	TUAN A. VU	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date. _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the Applicant's response filed 12/01/08.

As indicated in Applicant's response, claims 1, 9 have been amended. Claims 1, 3-17 are pending in the office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Microsoft Corporation, "Microsoft Windows Management Instrumentation Scripting", April 1999, pp. 1-15 (hereinafter MSWMI), further in view of Admitted Prior Art (APA – see BACKGROUND of application).

As per claim 1, MSWMI discloses a computer-implemented method for providing access to instrumentation data from within a managed code runtime environment, the method comprising:

providing an application (e.g. WMI technology – Introduction) from in a runtime-aware programming language (e.g. Introduction: *enterprise environment, model* - pg 1; Object, Information Model: pg. 5-11), the application being suitable for execution by a runtime engine in a managed runtime environment (Note: application of a enterprise application with modeling and interface or extension APIs reads on application with a runtime-aware programming language);

executing the application in a managed runtime environment having a runtime engine, wherein there is a defined contract of operation between the executing application and the runtime engine to delegate certain application tasks to the runtime engine that enable the runtime engine to service requests (e.g. **Windows Management Instrumentation Technology**: *Access to monitor, command, control any entity…underlying mechanism, API … Interoperability …providing and accessing management …extend the information …connect one or more sources of management information …capture instrumentation, detailed queries* --pg. 1, bottom to pg. 2 , top) from the executing application at runtime;

including requests for instrumentation data representing management information about other applications and devices available in an environment outside the runtime environment (e.g. *to capture instrumentation data from device drivers kernel* ..- pg. 2, 5th bullet-top; *Performance Monitor Provider* – pg. 4, 4th bullet; *WDM provider* – 10th bullet, pg. 4; *access the CIMOM object repository* -- pg. 4, middle; **WMI Architecture Overview**: *using WMI APIs … providers supply … CIM object Manager with data from managed objects, handle requests*; *interface between management applications and data providers … common programming interface to Windows Management Instrumentation, data in this repository when servicing requests from management applications for managed objects* – pg.3, middle; Fig. 1, pg. 4; *WMI Providers data that is not available from the CIMOM … forward to WMI Provider data and event notifications for managed objects* – top pg. 4; **Advantages of Using WMI Scripting**: *custom providers can … cover vendor specific instrumentation (for system, applications, devices…), Extensible Providers instrumentation* – 3rd bullet, pg. 5; WMI Scripts Usage: *Queries … remote system*

remote access ... remote computer - 3rd, 6th bullet pg. 11 --Note: WMI providers reads on server or executing device outside of managed code runtime --see middle pg. 4);

receiving a request at the runtime engine from the executing application for instrumentation data available in the environment outside said managed code runtime environment the request including

a path of an instrumentation data object (e.g. *SWbemObjectPath* – pg. 6, Features: Object Creation; SWbemObjectPath – bottom, pg. 7) for accessing the instrumentation data (e.g. pg. 2, 5th bullet-top; pg.3, middle; Fig. 1, pg. 4; top pg. 4),

options used to retrieve (e.g. *SWbemServices Object: Get, Delete, InstancesOf, ExecQuery, AssociatorsOf* … pg. 7, middle; *GetObjectText_, SpawnInstance_*, pg. 9, middle) the instrumentation data object, and

an identification of a parent (e.g. *ParentNameSpace*, pg. 8, 3rd bullet)of the instrumentation data object;

transmitting a corresponding request for said instrumentation data to an instrumentation data source existing in the environment outside o said managed code runtime environment, receiving a responsе to said corresponding request from said instrumentation data source (e.g. *to capture instrumentation data from device drivers kernel* ..- pg. 2-top, 5th bullet; **WMI Architecture Overview**: *using WMI APIs ... providers supply ... CIM object Manager with data from managed objects, handle requests* ; *interface between management applications and data providers ... common programming interface to Windows Management Instrumentation,*– pg.3, middle; Fig. 1, pg. 4; *WMI Providers data that is not available from the CIMOM ... forward to WMI Provider data and event notifications for managed objects* – top pg. 4; *WMI ... providers ...*

MOF language to define and create classes – middle pg. 4; *data source such as system registry* – 3rd para, pg. 4);

converting said response to a format that is compatible with said managed code runtime environment (**Windows Management Instrumentation Technology**: *supports the syntax of CIM, MOF, common programming interface, scripting support* - pg. 1, bottom – Note: WMI environment working in conjunction with providers via scripting, and API for retrieval of remote objects, while supporting syntax of all interfaces reads on converting to syntax compatible for the WMI);

responding to said request for instrumentation data with said converted response (Note: request for data using API and collecting data into a compatible form for the modeling/instrumentation application reads on responding to request for such instrumentation data).

MSWMI does not explicitly discloses that the application for the runtime-aware language is written in a intermediate language, nor does MSWMI disclose that the runtime engine to execute said application is configured to execute such intermediate language. The use of WMI (Microsoft WMI or MSWMI) in application environment known as .NET platform has been well-established at the time the invention was made as set forth in APA (see BACKGROUND of Application: pg. 3, bottom para; pg. 4, top two para), according to which Microsoft .NET platform utilizes Microsoft WMI to effect the interface necessary to retrieve instrumentation data which is taught by MSWMI to the .NET platform, wherein .NET application is compiled as intermediate code (IL) so that the IL is admittedly being run using by a Microsoft .NET runtime engine (APA, see BACKGROUND: pg. 2, 3rd para). Based on MSWMI being also a Microsoft

product used in retrieving instrumentation data for Microsoft runtime application, it would have been obvious for one of ordinary skill in the art at the time the invention was made to utilize the WMI (as by MSWMI) so that it supports as interface to a application written in IL and executed by a .NET runtime engine (as by APA) because according the Microsoft and APA, .NET applications programs are platform independent designed to communicate with many other sources, and since MSWMI is also product of Microsoft running as interface in its own form in tandem with the Microsoft .NET environment (see APA, pg. 3-4) for rendering a variety of services to retrieve such multi-source data for the managed code of .NET (see APA), using the WMI into support a Microsoft .NET application as set forth by APA would be the very purpose of WMI (see APA: BACKGROUND, pg. 4) in light of .NET methodology's endeavor to obtain instrumentation data as purported by MSWMI.

Nor does MSWMI explicitly disclose that the outside environment comprising a native code environment. APA teaches that environment considered outside of the "Managed code" runtime environment of .NET would qualify as 'native code' environment (see APA: Specifications, 2nd para, pg. 4). In view of the self-evident dependency of hardware-based computer architecture on the very native nature of its code execution engine, it would have been obvious for one skill in the art at the time the invention was made to implement the external data source providers or system kernel/OS so that these data source provider/systems external to the WMI are machines or NW platforms that would by necessity operate as a 'native code based platform therefore; i.e. to include such a *native code environment* as defined in APA above, because devices are hardware and architecture based, and having a architecture based native

runtime environment would help support the function of these machines or devices in terms of NW communications, remote calls and data processing.

As per claim 3, MSWMI discloses converting instrumentation data object to a management object that is compatible with said runtime environment (see claim 1; *Using WMI technology .. create ...applications that implement ... features such as displaying system information, generating ... inventory resources...processing events* – pg. 3, Management Applications, bottom – Note: integrating data from request via API calls in order to integrate them for display in application via processing therein reads on converting requested data in runtime compatible form).

As per claim 4, MSWMI discloses wherein said management object encapsulates properties of the instrumentation data object (e.g. Standard inheritable methods – pg. 3, top, 2nd bullet; **Features**: *Monikers, for encapsulating the location* - pg 6, middle) accessible through said instrumentation data source, including

properties representing the path (e.g. Features: Object Creation, pg. 6; SWbemObjectPath – bottom, pg. 7) of the instrumentation data object for accessing the instrumentation data,

the options used to retrieve (e.g. *SWbemServices Object: Get, Delete, InstancesOf, ExecQuery, AssociatorsOf* … pg. 7, middle) the instrumentation data object and

the identification of the parent (e.g. *ParentNameSpace*, pg. 8, 3rd bullet) of the instrumentation data object.

As per claims 5-6, MSWMI discloses wherein said response comprises an indication that an operation was unsuccessful and wherein converting said response to said format comprises generating a management exception object; said indication that an operation was successful

comprises error codes (e.g. **Advantage of Using WMI Scripting**: 4th bullet: *built-in features ... exception* --pg. 5, middle; **Features**: *Error Handling* - pg 6, middle; **Asynchronous example:** *hResult, ErrorObject* – pg. 14, 2nd para; **SwbemLastError object**: *read-once semantics… cleared after reading* – pg. 9, bottom).

As per claim 7, MSWMI discloses a computer-readable storage medium comprising instructions which, when executed by a computer, cause the computer to perform the method of any one of claims 1 and 3-6 (e.g. Note: a computer system capable of supporting script, encapsulating of objects, API calls, binding object-oriented instances to a model, and display of instrumentation data or event processing as in claims 1, 3-6 reads on inherent computer readable medium for storing such software capabilities).

As per claim 8, MSWMI discloses a computer-controlled apparatus comprising a processing unit and a system memory, and wherein the apparatus further comprises a managed code runtime environment and is configured to carry out the method of any one of claims 1 and 3-6 (see claim 7).

As per claim 9, MSWMI discloses a computer-implemented method for accessing instrumentation data from within a runtime environment, wherein the runtime environment provides a runtime engine that executes an application compiled in a runtime-aware language (e.g. Introduction: *enterprise environment, model* - pg 1; Object, Information Model: pg. 5-11-- Note: application of a enterprise application with modeling and interface or extension APIs reads on application with a runtime-aware programming language), the method comprising:

receiving a request from the application for instrumentation data representing management information about other applications and devices available in an environment outside the runtime

environment (e.g. *to capture instrumentation data from device drivers kernel* ..- pg. 2-top, 5th bullet; **WMI Architecture Overview**: *using WMI APIs ... providers supply ... CIM object Manager with data from managed objects, handle requests* ; *interface between management applications and data providers ... common programming interface to Windows Management Instrumentation,*– pg.3, middle; Fig. 1, pg. 4; *WMI Providers data that is not available from the CIMOM ... forward to WMI Provider data and event notifications for managed objects* – top pg. 4; *WDM provider*, *WMI ... providers ... MOF language to define and create classes* – middle pg. 4; *data source such as system registry* – 3rd para, pg. 4; WMI Scripts Usage: *Queries ... remote system remote access ... remote computer* - 3rd, 6th bullet pg. 11 – Note: WMI providers reads on server or executing device outside of managed code runtime – see middle pg. 4),

the request comprising a path of an instrumentation data object for accessing said instrumentation data (e.g. Features: Object Creation, pg. 6; SWbemObjectPath – bottom, pg. 7), options used to retrieve (e.g. *SWbemServices Object: Get, Delete, InstancesOf, ExecQuery, AssociatorsOf* … pg. 7, middle; *GetObjectText_, SpawnInstance_*, pg. 9, middle) the instrumentation data objects and a namespace (e.g. **SWbemServices object**: *object ...connection to a namespace* – pg. 7, middle; *ParentNameSpace*, pg. 8, 3rd bullet) of the instrumentation data object;

in response to said request, querying for said instrumentation data, using the path to said instrumentation data object for accessing said instrumentation data; determining whether said instrumentation data was successfully returned (**WMI Scripts Usage**: *Method Execution, Queries, remote Access*, pg. 11; **Asynchronous example:** *hResult, ErrorObject* – pg. 14, 2nd

para – Note: scripting with path parameters reads on using path to incorporate in the query effected via API calls); and

in response to determining that said instrumentation data was successfully returned, constructing said management object in the runtime environment and populating said management object (e.g. CIM Object Collection-*SwbemObjectSet*, pg 11 – Note: object set after collecting of data from remote access reads on populating CIM model; **Features**:Object Creation, Collections, Direct Access, pg. 6; SwbemEventSource Object, SwbemNamedValueSet collection, SwbemObject) with said instrumentation data.

MSWMI does not explicitly disclose that the application for the runtime-aware language is written in an intermediate language. But this limitation has been addressed in claim 1 above.

Nor does MSWMI explicitly disclose that the outside environment comprising a native code environment. But this limitation has been addressed in claim 1 above.

As per claim 10, MSWMI discloses wherein constructing said management object in the runtime environment and populating said management object with said instrumentation data includes binding an instance of a management object class (e.g. **Features**: *Monikers* – pg. 6, middle) to said instrumentation data object for accessing said instrumentation data source.

As per claim 11, MSWMI discloses constructing a management scope object identifying the namespace (**SWbemServices object**: *object ...connection to a namespace* – pg. 7, middle; *ParentNameSpace*, pg. 8, 3rd bullet) associated with said instrumentation data object for accessing said instrumentation data.

As per claims 12-13, MSWMI discloses constructing a management path object identifying the path (Features: Object Creation, pg. 6; SWbemObjectPath – bottom, pg. 7), and

specifying the options to retrieve (e.g. *SWbemServices Object: Get, Delete, InstancesOf, ExecQuery, AssociatorsOf* … pg. 7, middle; *GetObjectText_, SpawnInstance_*, pg. 9, middle) said instrumentation data object for accessing said instrumentation data.

As per claim 14, MSWMI discloses throwing a management exception object (**Advantage of Using WMI Scripting**: 4th bullet: *built-in features … exception* --pg. 5, middle; **Features**: *Error Handling* - pg 6, middle; **Asynchronous example:** *hResult, ErrorObject* – pg. 14, 2nd para; **SwbemLastError object**: *read-once semantics… cleared after reading* – pg. 9, bottom) in response to determining that said instrumentation data was not successfully returned.

As per claim 15, MSWMI discloses wherein properties of said management object may be accessed utilizing an indexer (e.g. *SwbemNamedValueSet: …indexing mechanism* – **SwbemNamedValueSet collection**, pg. 8).

As per claims 16-17, MSWMI discloses a computer-readable storage medium and computer-controlled apparatus comprising a processing unit and a system memory, and wherein the apparatus further comprises a managed code runtime environment and is configured to carry out the method of any one of Claims 9-15 (refer to claims 7-8).

Response to Arguments

4. Applicant's arguments filed 12/01/08 have been fully considered but they are not persuasive. Following are the Examiner's observation in regard thereto.

35 USC § 103 Rejection:

(A) Applicants have submitted that examples such that data from *device drivers* as cited do not fulfill the claimed 'data that exist outside of the runtime environment', because these drivers exist within the managed code runtime environment (Appl. Rmrks pg. 7 bottom, pg. 8 top). The

notion of *outside* or *inside* has been interpreted only with respect to 'managed code' environment; and as set forth in the Office action, instrumentation data as needed via a request make sense around a very basic/simple fact that such data are not available within this *managed code environment* in the first place. Instrumentation data whether they come from the same machine outside this WMI environment as in MSWMI OR from remote machines/servers or third party providers (see middle pg. 4: SNMP Provider, Win32 Provider, WDM provider, third party Providers) confirm further that the source from which data are to be requested are sources outside of the WMI runtime in MSWMI; such that the cited portions regarding kernel machines or remote providers match the requirement of the 'outside' limitation as interpreted from the claim. For example, device drivers in WDM Provider are low level software devices that supply WDM data back to the high layer of the WMI environment based on the request directed down to this level of device driver provider. The language added to the claim has been addressed in the claim using APA and/or well-accepted methodology. The argument is not persuasive because the claim as it stands, does not provide sufficient teaching to characterize what exactly 'managed code environment' amounts to in terms of specifying what driver, applications, device/utilities to include or exclude(e.g. *inside* of , *outside* of). Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the reference.

(B) Applicants have submitted that MSWMI fails to teach or suggest 'receiving … ' and 'tramsmitting … environment comprising a native code environment' (Appl. Rmrks pg. 8

middle). The added limitation has been addressed as obvious in the worst case scenario; and the argument is not sufficiently persuasive in view of the analysis in section A above.

(C) Applicants have submitted that Claim 9 is allowable because of the deficiency by MSWMI in meeting Claim 1 (Appl. Rmrks pg. 9). This is referred back to section A.

In all, the claims stand rejected as set forth in the Office Action.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence - please consult Examiner before using) or 571-273-8300 (for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan A Vu/

Primary Examiner, Art Unit 2193

December 31, 2008